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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/531,019

**Applicant(s)**

BRONDIJK, ROBERT ALBERTUS

**Examiner**

Christine T. Tu

**Art Unit**

2117

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-9 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 12 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/CI/CC)  
Paper No(s)/Mail Date 4/12/2005 10/20/2005  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

### ***Claim Objections***

2. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

#### **Claim 4:**

At lines 1-4, the phrase "wherein (the) second user data ... are stored in (the) second alternate storage units" is same as "storing second user data ... in second user storage units" (as being recited at lines 5 of claim 1).

### ***Claim Rejections - 35 USC § 112***

3. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

#### **Claims 1, 4, 6:**

The use of a phrase "should be" throughout these claims should be avoided because it is not clear whether or not any function/limitation is actually being recited.

Claim 1:

At line 1, the use of the phrase "in particular" should be avoided because it is not clear whether an element after this phrase "in particular" is actually being recited. In this situation, a rewritable optical record carrier (in the phrase "in particular on a rewritable optical record carrier" as being recited) is not actually recited. What is being recited is only a record carrier (as being recited at line 1).

In other words, if the applicant would like to have the rewritable optical record carrier to be recited, the phrase "A method of managing defective storage units on a record carrier" should be replaced with --A method of managing defective storage units on a rewritable optical record carrier--.

At lines 3-4, due to the use of the phrase "which are or should be" and the multiple usage of commas ",", it is not clear whether the first user data is stored in [a] storage (as being recited at line 3), in a first user storage unit (as being recited at line 3), in a defective storage unit (as being recited at line 4), or in a first alternate storage unit (as being recited at line 4).

At lines 3-4, which element (the storage or the first user storage unit) is denoted as "a defective storage unit"?

At lines 5-7, due to the use of the phrase "which are or should be" and the multiple usage of commas ",", it is not clear whether the second user data is stored in [a] storage (as being recited at line 5), in a second user storage units (as being recited at

line 5), in a defective storage unit (as being recited at lines 6-7), or in a second alternate storage units (as being recited at line 7).

At lines 5-7, which element (the storage, the second user storage units or the first user storage unit) is denoted as "a defective storage unit"?

At line 10, the phrase "instead of address entries of said first and second user storage units (U1-U5)" should be replaced with --from said first and second alternate storage units (A1-A5) instead of from said first and second user storage units (U1-U5)".

Claim 2:

It is not clear why the first and the second alternate storage units are located in a defect area. Are the first and the second alternate storage units considered as defective units now (and therefore these first and second alternate storage units are now located in a defect area)?

Claim 3:

At line 1, the term "said storage unit" is unclear. Since there are so many type of storage units (first user storage unit, defective storage unit, first alternate storage unit, second storage unit, etc....) are being recited previously, it is not clear which storage unit is the term "said storage unit".

At line 2, the use of the phrase "in particular" should be avoided because it is not clear whether an element after this phrase "in particular" is actually being recited. In

this situation, an ECC block (in the phrase "in particular an ECC block" [at line 2]) is not actually recited. What is being recited is only "a sector" or "a storage block" (as being recited at lines 1-2).

In other words, if the applicant would like to have an ECC block to be recited, the phrase "a storage block" should be replaced with —an ECC block—.

Claim 4:

At line 1, an article "the" or "said" should be inserted before the word "second" if the term "second user data" is referring the previously recited second user data (as being recited in claim 1).

At line 2, an article "the" or "said" should be inserted before the word "storage" (first appearance) if the term "storage" (first appearance) is referring the previously recited storage (as being recited at line 5 of claim 1).

At line 2 an article "the" or "said" should be inserted before the word "second" if the term "second user storage units" are referring the previously recited second user storage units (as being recited in claim 1).

At lines 3-4, an article "the" or "said" should be inserted before the word "second" if the term "second alternate storage units" are referring the previously recited second alternate storage units (as being recited at line 7 of claim 1).

Claim 6:

At line 1, the use of the phrase "in particular" should be avoided because it is not clear whether an element after this phrase "in particular" is actually being recited. In this situation, a rewritable optical record carrier (in the phrase "in particular on a rewritable optical record carrier" as being recited) is not actually recited. What is being recited is only a record carrier (as being recited at line 1).

In other words, if the applicant would like to have the rewritable optical record carrier to be recited, the phrase "A device for managing defective storage units on a record carrier" should be replaced with —A device for managing defective storage units on a rewritable optical record carrier—.

At lines 3-4, due to the use of the phrase "which are or should be" and the multiple usage of commas ",", it is not clear whether the first user data is stored in the data storage means (as being recited at line 3), [a] storage (as being recited at line 3), in a first user storage unit (as being recited at line 3), in a defective storage unit (as being recited at lines 3-4), or in a first alternate storage unit (as being recited at line 4).

At lines 3-4, which element (the data storage means, the storage or the first user storage unit) is denoted as "a defective storage unit"?

At lines 5-7, due to the use of the phrase "which are or should be" and the multiple usage of commas ",", it is not clear whether the second user data is stored in the data storage means (as being recited at line 3), [a] storage (as being recited at line 5), in a second user storage units (as being recited at lines 5-6), in a defective storage

unit (as being recited at line 7), or in a second alternate storage units (as being recited at line 7).

At lines 5-7, which element (the data storage means [as being recited at line 3], the storage, the second user storage units or the first user storage unit) is denoted as "a defective storage unit"?

At lines 10-11, the phrase "instead of address entries of said first and second user storage units (U1-U5)" should be replaced with --from said first and second alternate storage units (A1-A5) instead of from said first and second user storage units (U1-U5)".

Claim 7:

At line 1, the use of the phrase "in particular" should be avoided because it is not clear whether an element after this phrase "in particular" is actually being recited. In this situation, a rewritable optical record carrier (in the phrase "in particular on a rewritable optical record carrier" as being recited) is not actually recited. What is being actually recited is only a record carrier (as being recited at line 1).

In other words, if the applicant would like to have the rewritable optical record carrier to be recited, the phrase "A device for managing defective storage units on a record carrier" should be replaced with --A device for managing defective storage units on a rewritable optical record carrier--.



At line 2, the article "a" should be replaced with an article "said" or "the" if the device is referring back to the previously recited device (as being recited at line 1 of claim 6).

Claim 8:

At line 1, the use of the phrase "in particular" should be avoided because it is not clear whether an element after this phrase "in particular" is actually being recited. In this situation, a rewritable optical record carrier (in the phrase "in particular on a rewritable optical record carrier" as being recited) is not actually recited. What is being recited is only a record carrier (as being recited at line 1).

In other words, if the applicant would like to have the rewritable optical record carrier to be recited, the use of the phrase "in particular" should be avoided, and the phrase "A record carrier, in particular a rewritable optical record carrier," should be replaced with --A rewritable optical record carrier--.

At lines 8-10, the phrase "which defective storage unit list (DSL) is to be used for accessing said first and second user data instead of address entries of said first and second user storage units (U1-U5)" should be replaced with a phrase --said address entries in said defective storage unit list (DSL) is to be used for accessing said first and second user data from said first and second alternate storage units (A1-A5) instead of from said first and second user storage units (U1-U5)--.

Claims 5 and 9:

These claims are rejected because they depend on claim 1 and contain the same problems of indefiniteness.

4. The following rejections are based on the best understanding of the claimed inventions by the examiner in view of the ambiguities that exist in the claims as mentioned above (supra ¶¶ 2 and 3).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono et al. (6,725,395 and Ono hereinafter) in view of Uneo et al. (6,918,001 and Ueno hereinafter).

Claims 1 and 3-4:

Ono discloses the invention substantially as claimed. Ono teaches (figure 1) a method and an apparatus for minimizing performance of degradation resulting from reassignment of data to alternate sectors as a result of a defect within the original sector

(abstract). Ono also teaches a hard disk (figure 1a), including an optical disk, having sectors A, B and C [in the middle of zone (2)] which contain a defect (figure 1(b)). Ono further teaches that the first request for writing data "a" into sector A is made but the data is written into alternative sector A' in alternative sector area X because sector A is defective. Then a request for writing data "b" into sector B and re-assignment is performed to alternative sector B' subsequent to alternative sector A'. Similarly, defective sector C into which a write request of data "c" is made, the data is re-assigned to alternative sector C' (figure 1, abstract, column 5 lines 29-35, column 6 lines 58-67 and column 7 lines 5-14).

Ono does not explicitly teach the feature of storing address entries of the first and the second alternate sectors to be used for accessing the first and second user data.

Ueno, however, teaches an error position memory (427) has a reassign defect map (RDM) which stores the location of the error and the reassigned location of the data (figure 2, column 5 lines 47-49, column 6 lines 37-39).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to realize Ono's memory manager (MM) (13) or Ono's disk controller (DV) (14) would have been comprised a reassign defect map (RDM) (as suggested by Ueno) for storing the addresses of Ono's alternate sectors A', B' and C'. One having ordinary skill in the art would be motivated to realize so because Ono teaches that his invention can read data from the alternative sectors (column 3 lines 14-15).

Claim 2:

Ono's alternative sectors A', B' and C' are located in an alternative sector area X (abstract, figure 1(b)).

Claim 5:

Ono's alternative sector B' is located in front of (before) the alternative sector A' (figure 1(b)).

Claim 9 (depends on claim 1):

Ono's method for assigning an alternative sector is accomplished by a micro processing unit (MPU) (15) executing firmware stored in the ROM (16) (column 9 lines 1-5).

Claim 6:

This claim is similar to claim 1 except that a device comprising data storage means. Ono discloses a disk enclosure (DE) (30) has a hard disk on which data is record and a magnet head for writing data on the hard disk (figure 4, column 8 lines 54-56).

Claim 7:

Ono discloses a hard disk apparatus (HDD) (1) comprises the disk enclosure (DE) (30) (figure 4, lines 43-49).

Claim 8:

Claim 8 is rejected for reasons similar to those set forth against claims 1 and 6.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine T. Tu whose telephone number is (571) 272-3831. The examiner can normally be reached on Mon-Thur. 8:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christine T. Tu/  
Primary Examiner  
Art Unit 2117

August 19, 2008